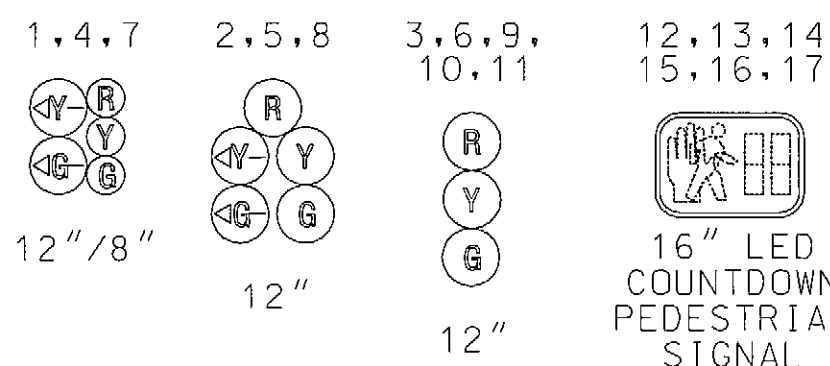


MD 45 IS ASSUMED TO RUN  
IN A NORTH-SOUTH DIRECTION

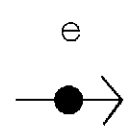
EXISTING SIGNALS



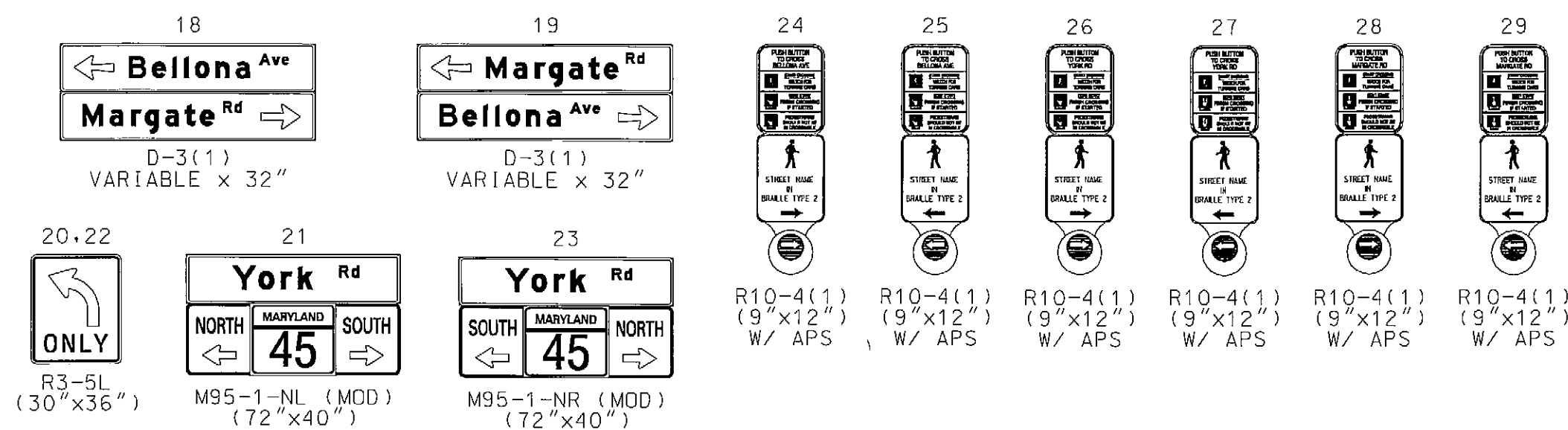
EXISTING VIDEO  
DETECTION

a, b, c, d

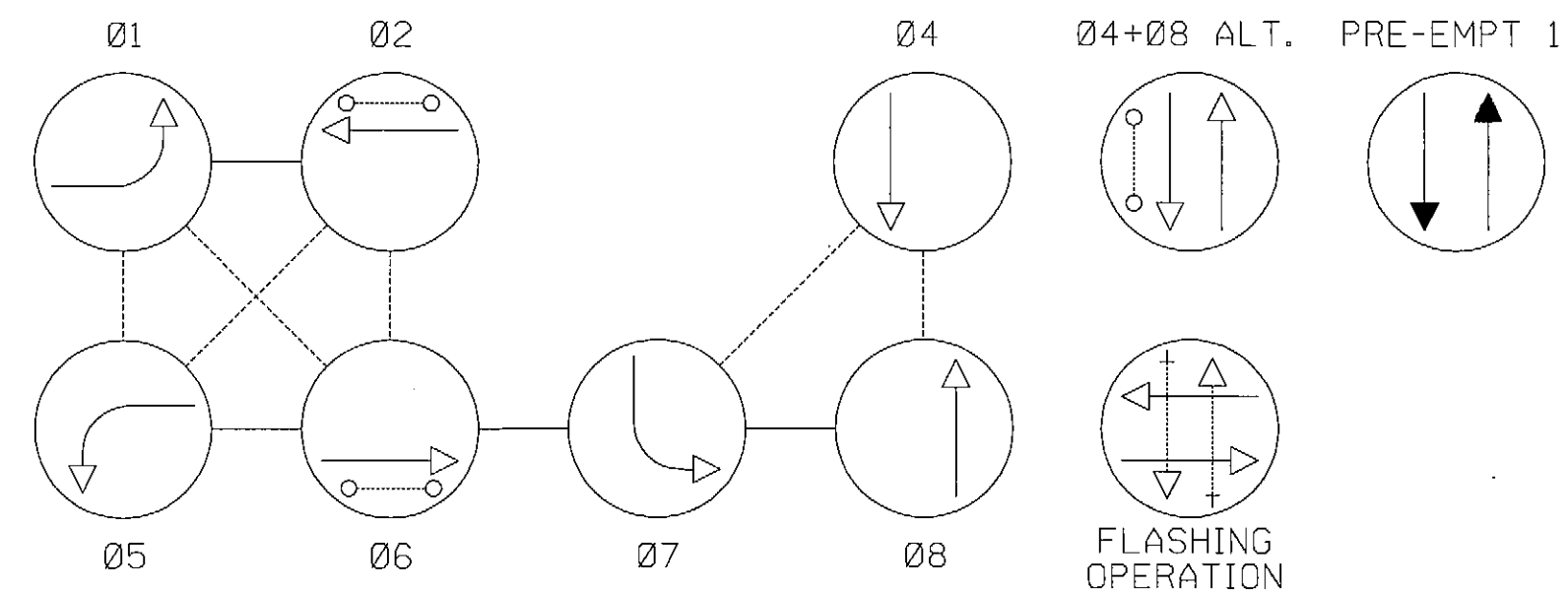
PROPOSED OPTICOM



EXISTING SIGNS



NEMA PHASING



NOTE:  
PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.  
PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.

CONSTRUCTION DETAILS

- INSTALL OPTICOM DETECTOR EYE ON EXISTING MAST ARM.
- USE EXISTING SIGNAL POLE.
- USE EXISTING CONDUIT.
- USE EXISTING HANDHOLE.
- USE EXISTING BASE MOUNTED CABINET.

GENERAL NOTES

- MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING MSHA STANDARD TYPICALS FOR TRAFFIC CONTROL.
- THE SHA SIGNAL SHOP WILL BE RESPONSIBLE FOR ALL INTERNAL CABINET WIRING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ROUTING AND PROPERLY LABELING ALL SIGNAL CABLES.
- THE CONTRACTOR SHALL DELIVER ONE (1) OPTICOM EMITTER SYSTEM, 700 SERIES TO THE LUTHERVILLE VOLUNTEER FIRE COMPANY, INC. CONTACT ROBERT J. SCHOTT AT 410-252-3134.

THE CONTACT PERSONS FOR DISTRICT #4 / OOTS ARE AS FOLLOWS:

District #4 Office Of Traffic & Safety  
Ms. Erin Kuhn Assistant District Engineer - Traffic Phone: 410-321-2781  
Mr. Michael Pasquarillo District Utility Engineer Phone: 410-321-2841  
Mr. Andre Futral Assistant District Engineer - Maintenance Phone: 410-321-2761  
Mr. Donald Schaefer Assistant District Engineer - Construction Phone: 410-321-2821  
Mr. Richard L. Daff Sr. Chief, Traffic Operations Division Phone: 410-787-7630  
Mr. Robert Snyder Assistant Division Chief, Traffic Operations Phone: 410-787-7630  
Mr. Edward Rodenhizer Team Leader Signal Operations Phone: 410-787-7630  
Mr. Eugene Bailey Team Leader Sign Operations Phone: 410-787-7670  
The Power Company Representative is: Baltimore Gas & Electric Company 7317 Parkway Drive South Hanover, MD 21076 Phone: 410-859-9062

PROJECT DESCRIPTION

GENERAL  
THIS PROJECT INVOLVES THE INSTALLATION OF OPTICOM DETECTION FOR EASTBOUND BELLONA AVENUE AT THE INTERSECTION OF MD 45 (YORK ROAD) AND BELLONA AVENUE/MARGATE ROAD IN BALTIMORE COUNTY. MD 45 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

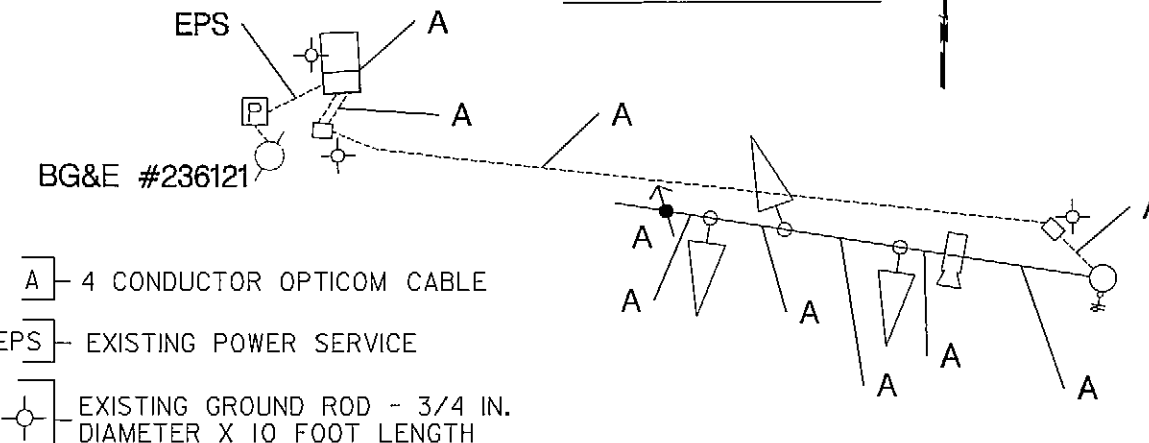
THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA SEVEN PHASE, FULL TRAFFIC ACTUATED MODE. A PROPOSED PRE-EMPTION PHASE WILL BE INSTALLED FOR EB BELLONA AVENUE.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED CABINET, CONTROLLER AND ASSOCIATED EQUIPMENT SHALL REMAIN. THE CONTRACTOR SHALL PROVIDE THE SHA SIGNAL SHOP ONE (1) DISCRIMINATOR MODULE, 4 CHANNEL, NO. 764 TO INSTALL WITHIN THE CABINET.

TOD NO: XX353-05  
SHA No: BA824K51  
MD 45 @ MD 131  
Lutherville YF7 Various Loc's

WIRING DIAGRAM



EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

ITEM NO. QUANTITY DESCRIPTION

NONE - ALL EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ITEM NO.	QUANTITY	DESCRIPTION
1003	1 EA	MAINTENANCE OF TRAFFIC PER ASSIGNMENT
8031	185 LF	4 CONDUCTOR OPTICOM CABLE
8045	1 EA	DISCRIMINATOR MODULE, 4 CHANNEL, NO. 764
8047	1 EA	OPTICOM NO. 721 DETECTOR EYE

EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

ITEM NO. QUANTITY DESCRIPTION

NONE - ALL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
PHASE 1 AND 5	+GR	+GR	R	+GR	+GR	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 1 AND 5 CHANGE TO 1 AND 6, 2 AND 5, OR 2 AND 6																	
PHASE 1 AND 6	+GG	+GG	G	R	R	R	R	R	R	R	R	DW	WK	WK	DW	DW	DW
PHASE 1 CHANGE	+VG	+VG	G	R	R	R	R	R	R	R	R	DW	WK	WK	DW	DW	DW
PHASE 2 AND 5	R	R	R	+GG	+GG	G	R	R	R	R	R	WK	DW	DW	WK	DW	DW
PHASE 5 CHANGE	R	R	R	+VG	+VG	G	R	R	R	R	R	WK	DW	DW	WK	DW	DW
PHASE 2 AND 6	G	G	G	G	G	G	R	R	R	R	R	WK	WK	WK	DW	DW	DW
PEDESTRIAN CLEARANCE	G	G	G	G	G	G	R	R	R	R	R	FLOW	FLOW	FLOW	DW	DW	DW
PHASE 2 AND 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 4 AND 7	R	R	R	R	R	R	+GG	+GG	G	R	R	DW	DW	DW	DW	DW	DW
PHASE 7 CHANGE	R	R	R	R	R	R	+VG	+VG	G	R	R	DW	DW	DW	DW	DW	DW
PHASE 4 AND 8	R	R	R	R	R	R	G	G	G	G	G	DW	DW	DW	DW	DW	DW
PHASE 4 AND 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW
PHASE 4 AND 8 ALT.	R	R	R	R	R	R	G	G	G	G	G	DW	DW	DW	DW	WK	WK
PEDESTRIAN CLEARANCE	R	R	R	R	R	R	G	G	G	G	G	DW	DW	DW	DW	FLOW	FLOW
PHASE 4 AND 8 ALT. CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW
PRE-EMPTION 1	R	R	R	R	R	R	G	G	G	G	G	DW	DW	DW	DW	DW	DW
PRE-EMPTION 1 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY	DARK	DARK	DARK	DARK	DARK	DARK

UTILITY LEGEND

E	E	ELECTRIC CABLES	SD	SD	STORM DRAIN
A	A	AERIAL CABLES	G	G	GAS MAIN
T	T	TELEPHONE CABLES	W	W	WATER MAIN
F	F	FIBER-OPTIC	S	S	SEWER MAIN

SHA

STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION

MD 45 (YORK ROAD) AT BELLONA AVENUE/MARGATE ROAD  
LUTHERVILLE, MD

TRAFFIC SIGNALIZATION PLAN

SCALE 1" = 20' ADVERTISED DATE CONTRACT NO. BA7065171

DESIGNED BY COUNTY BALTIMORE  
DRAWN BY LOGMILE 03004503.92  
CHECKED BY TMS NO. J883  
F.A.P. NO. TOD NO.

TS NO. 4591F DRAWING SC-04 OF 06 SHEET NO. 04 OF 06

PLOTTED: Tuesday, February 23, 2010 AT 10:22 PM  
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